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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,783	03/12/2004	Tohru Mamata	008312-0308754	5615
909 7590 01/09/2008 PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			EXAMINER KARIMI, PEGEMAN	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 01/09/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/798,783	Applicant(s) MAMATA, TOHRU	
	Examiner Pegeman Karimi	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7, 9 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 9 and 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 12/10/2007 has been entered and considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 7, 9, 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Luther Weindorf (U.S. Pub. No. 2002/0118182).

As to claim 1, Weindorf teaches, an information processing device (computer, [0023], line 12) comprising:

a display unit (100) whose display brightness [[level]] (brightness values of Table 1) is changeable ([0034], lines 2-3) based on a control signal (control signal = fractional power function), ([0056]); the display brightness level having a plurality of display brightness levels (Brightness levels are the Step number in Table 1), a difference between the brightness levels adjacent thereto being predetermined (the difference between step 1 and step 2 is predetermined by the value of photodiode, which is in Amps in Table 1);

a detector (114) configured to detect a lightness of surroundings ([0029], lines 9-12 and 18-20);

a calculator (340) configured to calculate a target display brightness [[level]] of the display unit (nighttime and daytime ambient light conditions), ([0068], lines 1-5) responsive to the lightness detected by the detector means (114) for detecting the lightness ([0029], lines 18-20); and

a controller (brightness control system) configured to repeatedly change the control signal by a predetermined level to change the display brightness [[level]] of the display unit ([0034], lines 1-3), ([0038], lines 1-7) by a predetermined brightness step (step number) until the display brightness equals the target brightness ([0038], lines 5-11), the predetermined brightness step being obtained by dividing a brightness changeable range (the predetermined brightness step in Table 1 is obtained by dividing the brightness adjustable night luminance by 29 steps from step -3 to step 25, and dividing the day luminance by 48 steps from step -3 to step 44).

As to claim 9, this claim differs from claim 1 only in that claim 1 is apparatus whereas claim 9 is method. Thus, method claim 9 is analyzed as previously discussed with respect to claim 1 above.

As to claim 2, Weindorf teaches the controller (brightness control) is further configured to change the control signal to change the display brightness ([0034], lines 1-3) [[level]] to the target brightness ([0038], lines 9-11).

As to claim 3, Weindorf teaches when the lightness detected by the detector (light detected by the sensor) changes during repeated changing of the control signal by the controller ([0034], lines 1-3), ([0038], lines 1-11), the calculator (340) updates the target brightness of the display device (the comparator calculates the nighttime and daytime ambient light conditions), ([0068], lines 20-28).

As to claim 7, Weindorf teaches a determining unit (340) configured to determine whether or not [[the]] a difference between (the difference between the day mode or the night mode) the target brightness (day or night luminance) and the display brightness [[level]] (current brightness step) is greater than a predetermined value (hysteresis point), ([0068], lines 13-17), and wherein

the controller (brightness control system) repeatedly changes the control signal ([0034], lines 1-3) by the predetermined level ([0038], lines 1-11; [0068], lines 20-28) when the determining unit determines that the difference is greater than the predetermined value ([0068], lines 13-17) and

the controller (brightness control) changes the control signal to change the display brightness to the target brightness ([0034], lines 1-3), ([0038], lines 1-11) when the determining unit (340) determines that the difference is not greater than the predetermined value ([0068], lines 1-5 and lines 13-17), (when the target brightness mode for daytime exist day/night comparator determines the mode if the hysteresis point is exceeded; since the hysteresis separates the nighttime and daytime ambient

light conditions for values below the hysteresis the comparator determines nighttime ambient light conditions).

As to claim 13, Weindorf teaches a user setting display screen (the user may adjust the luminance to increase or decrease the brightness), ([0034], lines 12-16) on which one of a first mode and a second mode (daytime and nighttime) is selectable ([0069], lines 3-5), and wherein

the controller (brightness control) repeatedly changes the control signal by the predetermined level when the first mode is selected and the controller changes the control signal to change the display brightness to the target brightness when the second mode is selected (predetermined level = daytime or nighttime), ([0034], lines 1-3), ([0038], lines 1-11), (the brightness controller adjusts the daytime brightness automatically in response to changes in ambient light and depending on whether it is night or day, the brightness level is adjusted according to the night or day luminance value).

As to claim 14, Weindorf teaches further-comprising:

changing the control signal to change the display brightness ([0034], lines 1-3) to the target brightness ([0038], lines 9-11).

As to claim 15, Weindorf teaches when the detected lightness (light detected by the sensor) changes during repeated changing of the control signal ([0034], lines 1-3),

([0038], lines 1-11), the target brightness of the display device is updated (the comparator calculates the nighttime and daytime ambient light conditions and a selector 344 receives the signal from the comparator [0069], lines 5-9), ([0068], lines 20-28).

As to claim 16, Weindorf teaches determining whether or not a difference between (the difference between the day mode or the night mode) the target brightness (day or night luminance) and the display brightness (current brightness step) is greater than a predetermined value (hysteresis point), ([0068], lines 13-17), and

wherein the repeatedly changing is performed (it is performed by brightness control system) when the difference is greater than the predetermined value ([0068], lines 13-17) and

changing the control signal to change the display brightness to the target brightness ([0034], lines 1-3), ([0038], lines 1-11) is performed when the difference is not greater than the predetermined value ([0068], lines 1-5 and lines 13-17), (when the target brightness mode for daytime exist day/night comparator determines the mode if the hysteresis point is exceeded; since the hysteresis separates the nighttime and daytime ambient light conditions for values below the hysteresis the comparator determines nighttime ambient light conditions).

As to claim 17, Weindorf teaches displaying a user setting display screen (the user may adjust the luminance to increase to decrease the brightness), ([0034], lines

12-16) on which one of a first mode and a second mode (daytime or nighttime) is selectable ([0069], lines 3-5), and wherein

the repeatedly changing is performed (is performed by the brightness control) when the first mode is set and changing the control signal to change the display brightness to the target brightness is performed when the second mode is set (predetermined level = daytime or nighttime), ([0034], lines 1-3), ([0038], lines 1-11), (the brightness controller adjusts the daytime brightness automatically in response to changes in ambient light and depending on whether it is night or day, the brightness level is adjusted according to the night or day luminance value).

Response to Arguments

4. Applicant's arguments filed 12/10/2007 have been fully considered but they are not persuasive.

Applicant argues that the asserted reference fails to teach each and every element of claim 1, including "a calculator configured to calculate a target brightness of the display unit responsive to the lightness detected by the detector and a controller configured to repeatedly change the control signal by a predetermined brightness step until the display brightness equals the target brightness, the predetermined brightness step being obtained by dividing a brightness changeable range." Weindorf teaches a comparator, which calculates the threshold signal level with hysteresis where it separates the nighttime and daytime ambient light conditions. The light conditions are the target brightness of the display unit. Brightness controller system adjusts the display

brightness as a function of ambient light by using a fractional power function. The change in brightness is in response to changes in ambient light and adjusts according to the night or day luminance value for the step number. the predetermined brightness step in Table 1 is obtained by dividing the brightness adjustable night luminance by 29 steps from step -3 to step 25, and dividing the day luminance by 48 steps from step -3 to step 44).

In response to "a controller configured to repeatedly change the control signal", Weindorf mentions a fractional power function, which may be adjusted by a constant luminance ratio offset. Fractional power function has a fractional power slope which decides the value for logarithmic amplifier, which is different for displays ([0056]).

Inquires

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pegeman Karimi whose telephone number is (571) 270-1712 and direct fax number is (571) 270-2712. The examiner can normally be reached on Monday-Thursday 8:00am - 5:00pm EST.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Pegeman Karimi
January 4, 2008


CHANH D. NGUYEN
SUPERVISORY PATENT EXAMINER